

Everlight ACTION

AC LED Series

Take Action with the Everlight ACTION for your Lighting Applications...

Introduction

The Everlight ACTION series AC LED embraces the simple electrical concepts of a Bridge Rectifier. This allows the ACTION to operate easily with an AC source without needing many additional IC's, which reduce reliability and increase cost to a system. The ACTION demonstrates useable, high light output efficiency from a direct AC source and allows for unique lighting fixture designs. The ACTION's thermal management, efficiency, and energy savings performance exceeds that of other power LED solutions by incorporating green, state of the art design and efficient thermal emission material. It is an ideal light source for many simple general illumination applications.



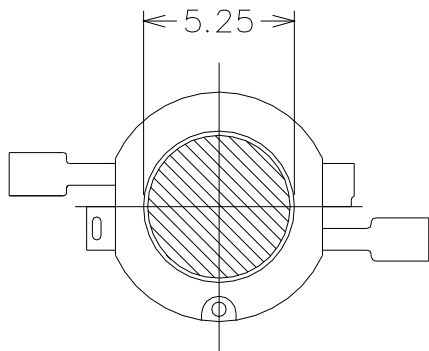
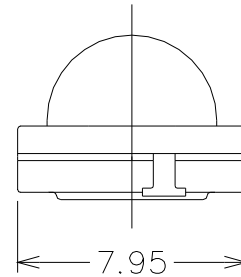
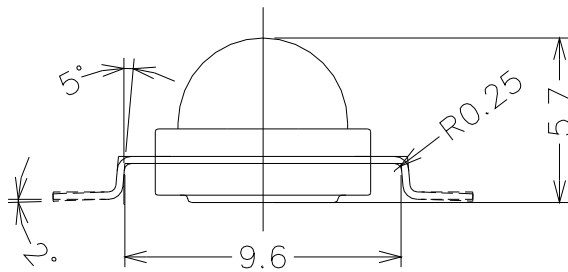
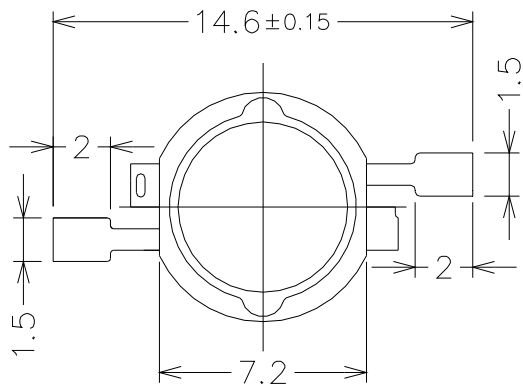
Features

- ◆ Direct AC power operation
- ◆ High efficiency
- ◆ Energy savings
- ◆ Low thermal resistance
- ◆ Long life time
- ◆ SMT Solderability
- ◆ Lead free
- ◆ RoHS compliant

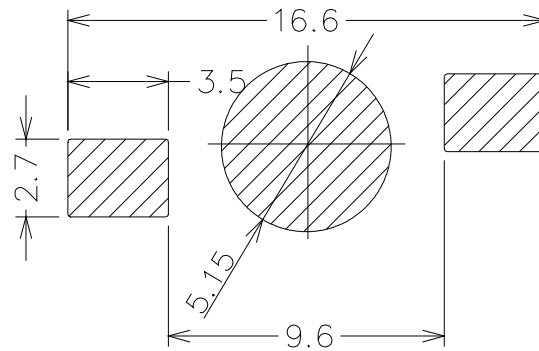
Applications

- ◆ General Lighting
- ◆ Decorative Lighting
- ◆ Task Lighting
- ◆ Household Lighting
- ◆ Architectural Lighting
- ◆ Pathway Lighting

Mechanical Dimension for ELAC-1XXX 1W 100/110VAC



Bot. view

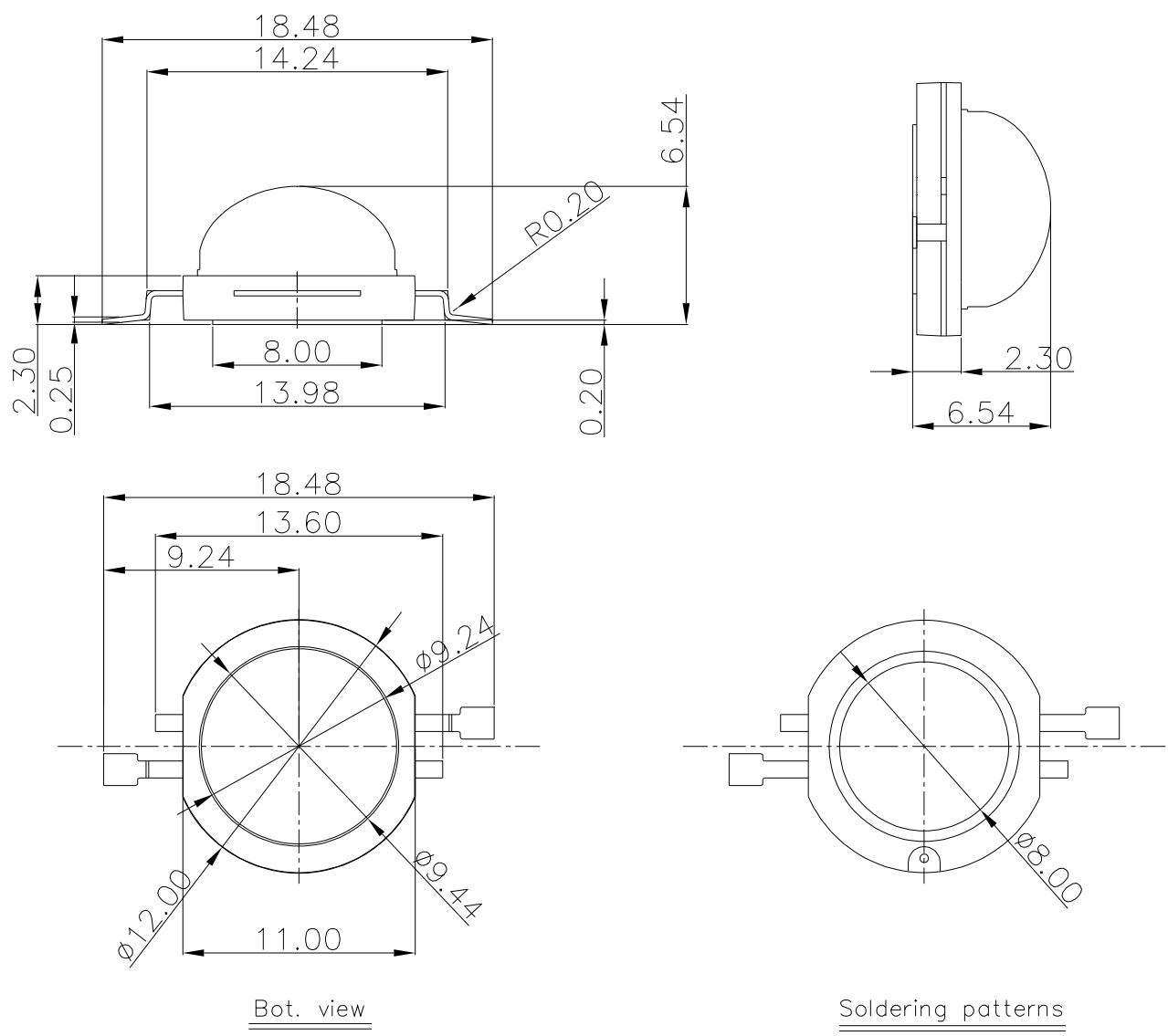


Soldering patterns

Note

1. Dimensions are in millimeters.
2. Tolerances unless mentioned are ± 0.25 mm.
3. Do not handle the device by the lens. Incorrect force applied to the lens may lead to the failure of devices.
4. The thermal pad is electrically isolated from the anode and cathode contact pads.

Mechanical Dimension for ELAC-4XX1 4W 100/110VAC

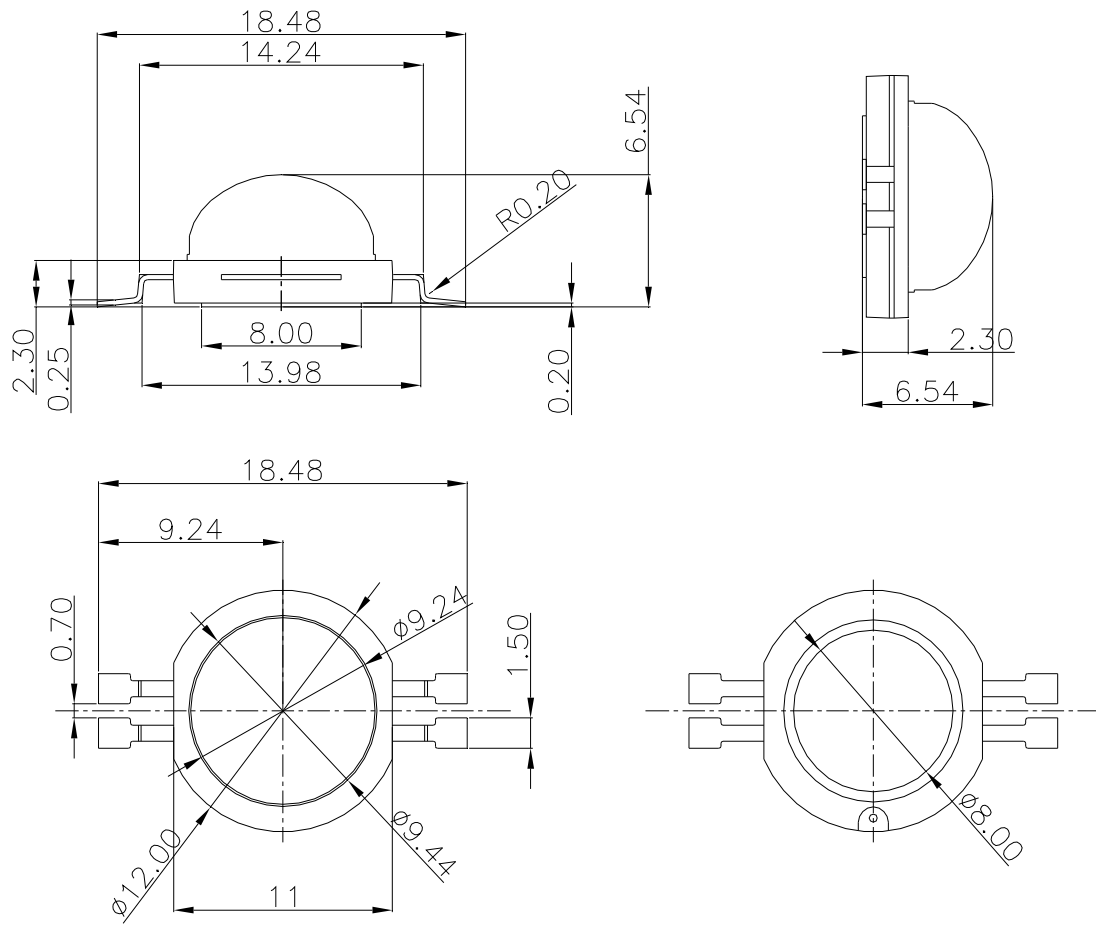


Note

1. Dimensions are in millimeters.
2. Tolerances unless mentioned are ± 0.25 mm.
3. Do not handle the device by the lens. Incorrect force applied to the lens may lead to the failure of devices.
4. The thermal pad is electrically isolated from the anode and cathode contact pads.

Mechanical Dimension for ELAC-4XX2

4W 220/230VAC



Note

5. Dimensions are in millimeters.
6. Tolerances unless mentioned are ± 0.25 mm.
7. Do not handle the device by the lens. Incorrect force applied to the lens may lead to the failure of devices.
8. The thermal pad is electrically isolated from the anode and cathode contact pads.

Product Nomenclature

The product name is designated as below:

ELAC - ABCD - EFGH - IJKL - MN

ELAC: Everlight ACTION Series

Production Number

- A = Power Consumption
- BC = Color Region
- D = Voltage Source
- E = Lens Type
- FG = Luminous Flux Range
- H = Voltage Bin
- IJKL = CIE X-Y Coordinates Bin Code, or Dominant Wavelength
- M = Internal Code
- N = Packing type

[A] Power Consumption

Code	Power Consumption
1	1 W, 8mm Diameter Lead Frame Package
2	2 W, 12mm Diameter Lead Frame Package (Not Yet Available*)
4	4 W, 12mm Diameter Lead Frame Package

[BC] Color Region

Code	Color Definition
GT	High Efficacy Cool White(4745~7050K)
LM	High Efficacy Warm White(2580~3710K)
--	Other Colors (Not Yet Available*)

◇ Please refer to Pages 10-12 for details.

[D] Voltage Source

Code	Operating Voltage
1	100V/110V
2	220V/230V

[E] Lens Type

Code	Lens Type
L	Lambertian
--	Other Lenses (Not Yet Available*)

[FG] Luminous Flux Range

◇ Please refer to Page 9 for details.

[H] Voltage Bin

Code	Range of Divided Bins
A	1+2+3+4+5+6
B	5+6+7+8+9+10
C	11+12+13+14+15

◇ Please refer to Page 9 for details.

[IJKL] Color Bin or CCT Bin

◇ Please refer to Pages 10-12 for details.

[M] Internal Code

[N] Packing type

Code	Packaging Type
R	Tape Reel
B	Tube
-	-

* Please contact sales for more information and scheduling. For details refer to page 24.

Absolute Maximum Ratings

Parameter	Symbol	Series	Ratings	Unit
Operating Voltage ^[1]	V_{opt}	ELAC-1XXX	125	V_{rms}
		ELAC-4XX1	125	
		ELAC-4XX2	265	
Power Dissipation ^[2]	P_d	ELAC-1XXX	1.8	W
		ELAC-4XXX	6.4	
ESD Resistance	-	All	± 2000	V
Junction Temperature	T_J	All	125	$^{\circ}C$
Operating Temperature	T_{Opt}	All	-40 ~ +85	$^{\circ}C$
Storage Temperature	T_{Stge}	All	-40 ~ +100	$^{\circ}C$
Soldering Temperature	T_{Sol}	All	260	$^{\circ}C$

^[1] The operating Voltage does not indicate the maximum voltage which customers use. It represents the LED's maximum acceptable input voltage according to the voltage variation in different countries. It is recommended that the temperature of lead frame should remain below 70 $^{\circ}C$.

^[2] Power Dissipation does not include resistor. Resistor values listed in the Application Note.

Electro-Optical Characteristics

Electrical Characteristics ($T_{Soldering}=25^{\circ}C$)

Parameter	Symbol	Series	Min	Typ.	Max	Unit
Operating Current	I_{opt}	ELAC-1XXX	-	10	-	mA [RMS]
		ELAC-4XX1	-	40	-	
		ELAC-4XX2	-	20	-	
Operating Frequency	F_q	All	-	50/60	-	Hz
Power Dissipation _[3]	P_d	ELAC-1XXX	-	0.9	-	W
		ELAC-4XXX	-	3.3	-	

[3] Power Dissipation does not include resistor. Resistor values listed in the Application Note.

Optical Characteristics ($T_{Soldering}=25^{\circ}C$)

ELAC 1W Series

Parameter	Symbol	Series	Min	Typ.	Max	Unit
Brightness _[4]	Φ_v	ELAC-1GTX	-	55	-	lm
		ELAC-1LMX		45		
CRI	R_a	ELAC-1GTX	-	75	-	-
		ELAC-1LMX	-	80	-	
View Angle _[5]	Deg.	All	-	130	-	deg.

ELAC 4W Series

Parameter	Symbol	Series	Min	Typ.	Max	Unit
Brightness _[4]	Φ_v	ELAC-4GTX	-	220	-	lm
		ELAC-4LMX		160		
CRI	R_a	ELAC-4GTX	-	75	-	-
		ELAC-4LMX	-	80	-	
View Angle _[5]	Deg.	All	-	130	-	deg.

[4] Luminous Flux measurement tolerance: $\pm 10\%$.

[5] View angle tolerance is $\pm 10^{\circ}$.

Current Available Part Numbers

ELAC 1W Series

Part Number	Operating Voltage	Luminous Flux	Correlated Color Temperature	Voltage Bin
ELAC-1GT1-LFGA-5060-XX	100/110 VAC	48-100lm	Cool White 5000-6020K	80-92 V
ELAC-1GT1-LFGB-5060-XX	100/110 VAC	48-100lm	Cool White 5000-6020K	88-100V
ELAC-1LM1-LEFA-2832-XX	100/110 VAC	33-69lm	Warm White 2870-3220K	80-92 V
ELAC-1LM1-LEFB-2832-XX	100/110 VAC	33-69lm	Warm White 2870-3220K	88-100V

◇ Please refer to Page 9-12 in details.

ELAC 4W Series

Part Number	Operating Voltage	Luminous Flux	Correlated Color Temperature	Voltage Bin
ELAC-4GT1-LMPA-5060-XX	100/110 VAC	180-255lm	Cool White 5000-6020K	80-92 V
ELAC-4GT1-LMPB-5060-XX	100/110 VAC	180-255lm	Cool White 5000-6020K	88-100V
ELAC-4GT2-LMPC-5060-XX	220/230 VAC	180-255lm	Cool White 5000-6020K	175-200V
ELAC-4LM1-LJLA-2832-XX	100/110 VAC	130-180lm	Warm White 2870-3220K	80-92 V
ELAC-4LM1-LJLB-2832-XX	100/110 VAC	130-180lm	Warm White 2870-3220K	88-100V
ELAC-4LM2- LJLC-2832-XX	220/230 VAC	130-180lm	Warm White 2870-3220K	175-200V

◇ Please refer to Page 9-12 in details.

Luminous Flux Binning Code ^{[6] [7]}

Divided Bin	Luminous Flux ^{[6] [7]}
E	33-48
F	48-69
G	69-100
H	100-130
J	130-150
K	150-165
L	165-180
M	180-200
N	200-225
P	225-255
Q	255-290
R	290-330

^[6] Luminous Flux measurement tolerance: $\pm 10\%$. Divided bins will be marked on packaging.

^[7] For Bin Code selection, specify the minimum and maximum Divided Bin in part number.
Bin Code selection restricted to a typical of 2 Divided Bins.

Voltage Binning ^[8]

Voltage Bin Code

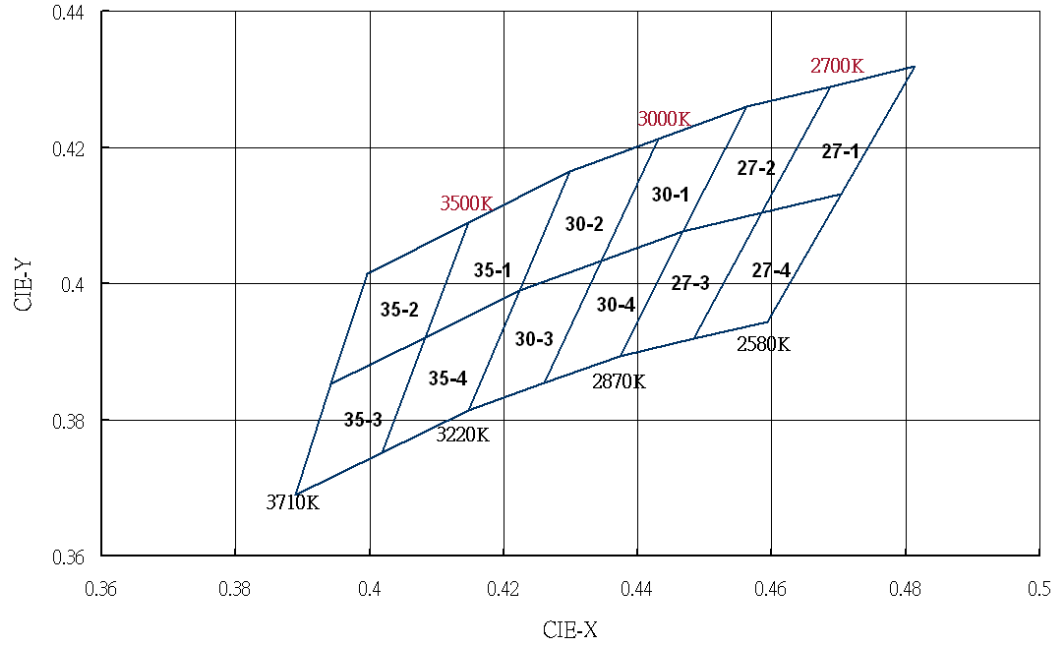
Code	Group of Divided Bins
A	1+2+3+4+5+6
B	5+6+7+8+9+10
C	11+12+13+14+15

Range of the Divided Bins

Rank	Minimum Voltage (Vrms)	Maximum Voltage (Vrms)
1	80.0	82.0
2	82.0	84.0
3	84.0	86.0
4	86.0	88.0
5	88.0	90.0
6	90.0	92.0
7	92.0	94.0
8	94.0	96.0
9	96.0	98.0
10	98.0	100.0
11	175.0	180.0
12	180.0	185.0
13	185.0	190.0
14	190.0	195.0
15	195.0	200.0

^[8] Forward Voltage measurement tolerance: $\pm 1V$. Rank will be marked on packaging.

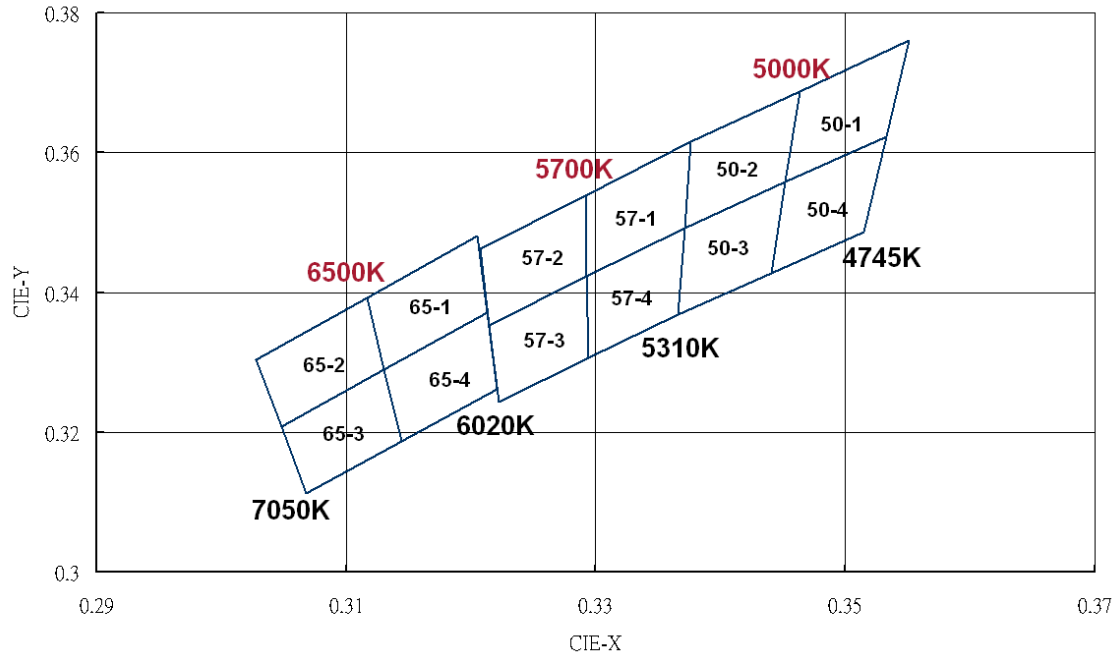
Warm -White Bin Coordinates ^[9]



Bin Code	Reference Range					
2528	2580K ~ 2870K					
2832	2870K ~ 3220K					
3237	3220K ~ 3710K					
Bin Code	Divided bin	CIE X	CIE Y	Divided bin	CIE X	CIE Y
2528	27-1	0.469	0.429	27-3	0.447	0.408
		0.459	0.410		0.437	0.389
		0.470	0.413		0.448	0.392
		0.481	0.432		0.459	0.410
	27-2	0.456	0.426	27-4	0.459	0.410
		0.447	0.408		0.448	0.392
		0.459	0.410		0.459	0.394
		0.469	0.429		0.470	0.413
2832	30-1	0.443	0.421	30-3	0.422	0.399
		0.435	0.403		0.415	0.381
		0.447	0.408		0.426	0.385
		0.456	0.426		0.435	0.403
	30-2	0.430	0.417	30-4	0.435	0.403
		0.422	0.399		0.426	0.385
		0.435	0.403		0.437	0.389
		0.443	0.421		0.447	0.408
3237	35-1	0.415	0.409	35-3	0.394	0.385
		0.408	0.392		0.389	0.369
		0.422	0.399		0.402	0.375
		0.430	0.417		0.408	0.392
	35-2	0.400	0.402	35-4	0.408	0.392
		0.394	0.385		0.402	0.375
		0.408	0.392		0.415	0.381
		0.415	0.409		0.422	0.399

^[9]Color Coordinates measurement tolerance: ±5%

Cool -White Bin Coordinates ^[9]

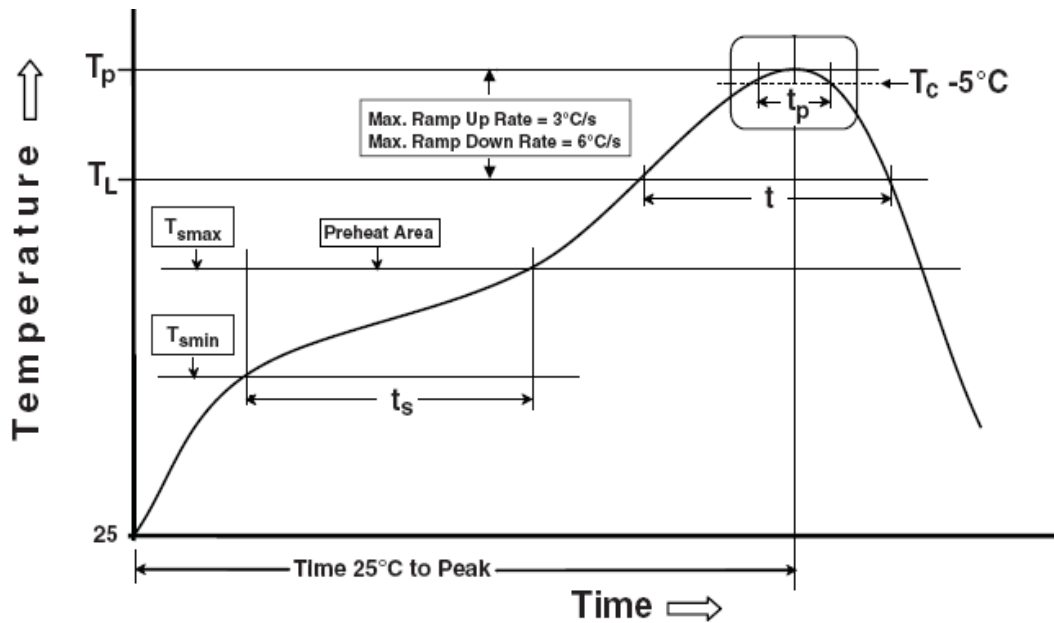


Bin Code	Reference Range					
4757	4745K ~ 5700 K					
5060	5000K ~ 6020K					
5365	5310K ~ 6500K					
5770	5700K ~ 7050K					
Bin Code	Divided bin	CIE X	CIE Y	Divided bin	CIE X	CIE Y
4757	50-1	0.346	0.369	50-3	0.337	0.349
		0.345	0.356		0.337	0.337
		0.353	0.362		0.344	0.343
		0.355	0.376		0.345	0.356
	50-2	0.338	0.362	50-4	0.345	0.356
		0.337	0.349		0.344	0.343
		0.345	0.356		0.352	0.349
		0.346	0.369		0.353	0.362
	57-1	0.329	0.354	57-4	0.329	0.342
		0.329	0.342		0.329	0.331
		0.337	0.349		0.337	0.337
		0.338	0.362		0.337	0.349
5060	50-2	0.338	0.362	50-3	0.337	0.349
		0.337	0.349		0.337	0.337
		0.345	0.356		0.344	0.343
		0.346	0.369		0.345	0.356
	57-1	0.329	0.354	57-3	0.321	0.335
		0.329	0.342		0.322	0.324
		0.337	0.349		0.329	0.331
		0.338	0.362		0.329	0.342
	57-2	0.321	0.346	57-4	0.329	0.342
		0.321	0.335		0.329	0.331
		0.329	0.342		0.337	0.337
		0.329	0.354		0.337	0.349

Group	Divided bin	CIE X	CIE Y	Divided bin	CIE X	CIE Y
5365	57-1	0.329	0.354	57-3	0.321	0.335
		0.329	0.342		0.322	0.324
		0.337	0.349		0.329	0.331
		0.338	0.362		0.329	0.342
	57-2	0.321	0.346	57-4	0.329	0.342
		0.321	0.335		0.329	0.331
		0.329	0.342		0.337	0.337
		0.329	0.354		0.337	0.349
	65-1	0.312	0.339	65-4	0.313	0.329
		0.313	0.329		0.314	0.319
		0.321	0.337		0.322	0.326
		0.321	0.348		0.321	0.337
5770	57-2	0.321	0.346	57-3	0.321	0.335
		0.321	0.335		0.322	0.324
		0.329	0.342		0.329	0.331
		0.329	0.354		0.329	0.342
	65-1	0.312	0.339	65-3	0.305	0.321
		0.313	0.329		0.307	0.311
		0.321	0.337		0.314	0.319
		0.321	0.348		0.313	0.329
	65-2	0.303	0.330	65-4	0.313	0.329
		0.305	0.321		0.314	0.319
		0.313	0.329		0.322	0.326
		0.312	0.339		0.321	0.337

[9] Color Coordinates measurement tolerance: ±5%

Reflow Soldering Characteristics



Reference: IPC/JEDEC J-STD-020D

Preheat

Temperature min. (T_{smin})	150 °C
Temperature max. (T_{smax})	200°C
Time (T_{smin} to T_{smax}) (t_s)	60-120 seconds
Average ramp-up rate (T_{smax} to T_p)	3 °C/second max

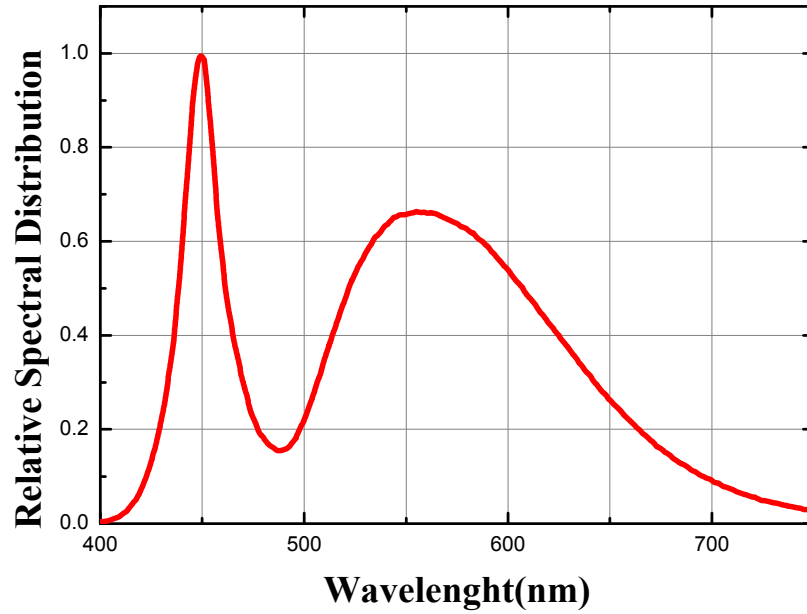
Other

Liquid's Temperature (T_L)	217 °C
Time above Liquid's Temperature (t_L)	60-150 sec
Peak Temperature (T_p)	260°C
Time within 5 °C of Actual Peak Temperature: $T_p - 5^\circ\text{C}$	10 s
Ramp- Down Rate from Peak Temperature	6°C /second max.
Time 25°C to peak temperature	8 minutes max.
Reflow times	2 times

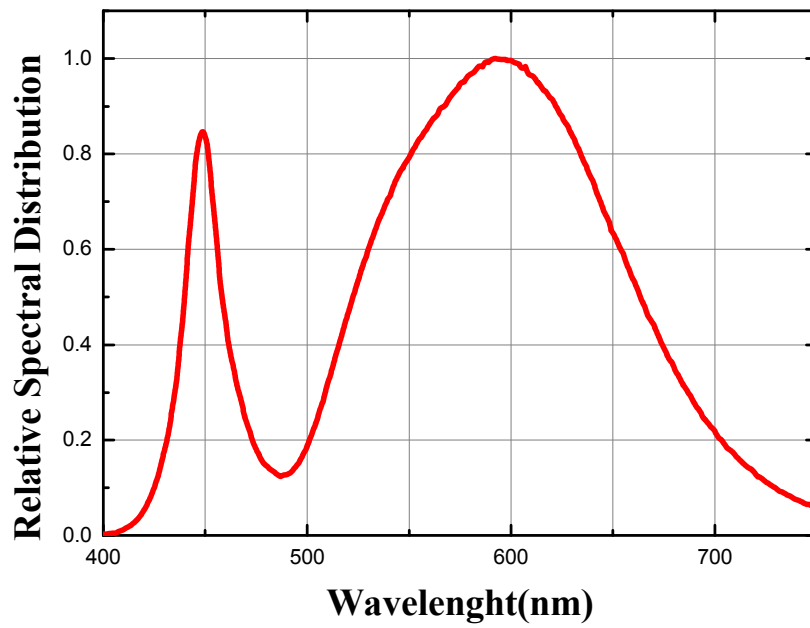
- All parameters are maximum body case temperature values and cannot be considered as a soldering profile. The body case temperature was measured by soldering a thermal couple to the soldering point of LEDs.

Typical Wavelength Characteristics

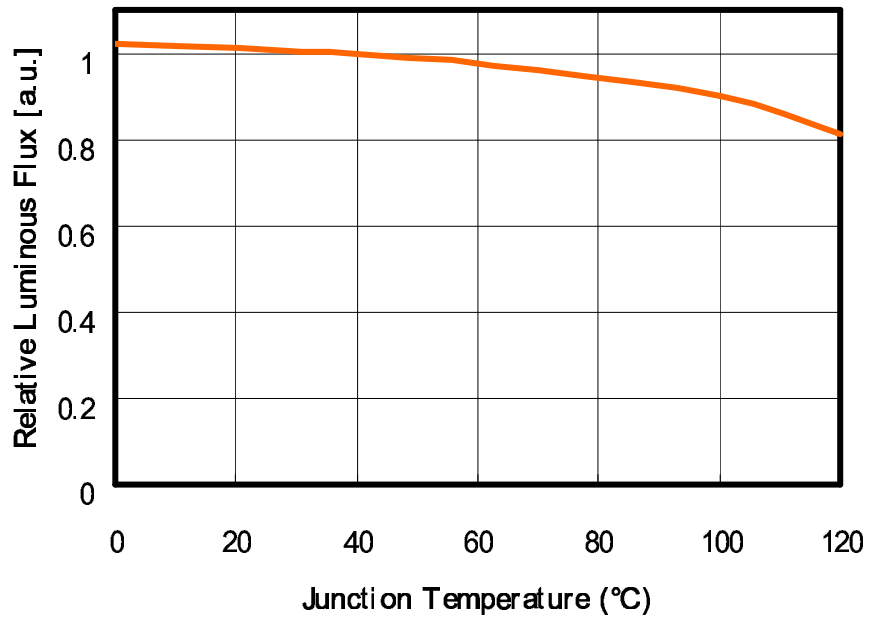
1. Cool-White (Thermal Pad Temperature = 25°C)



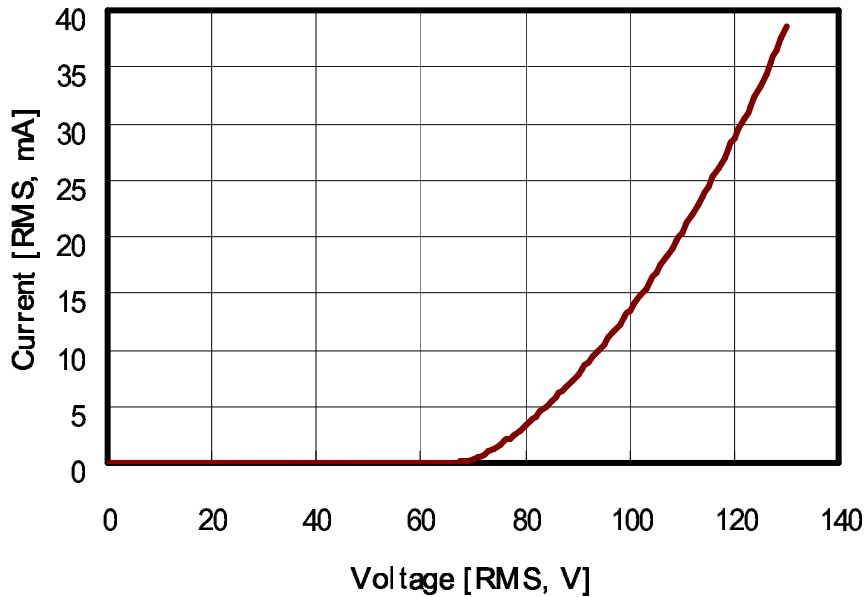
2. Warm-White (Thermal Pad Temperature = 25°C)



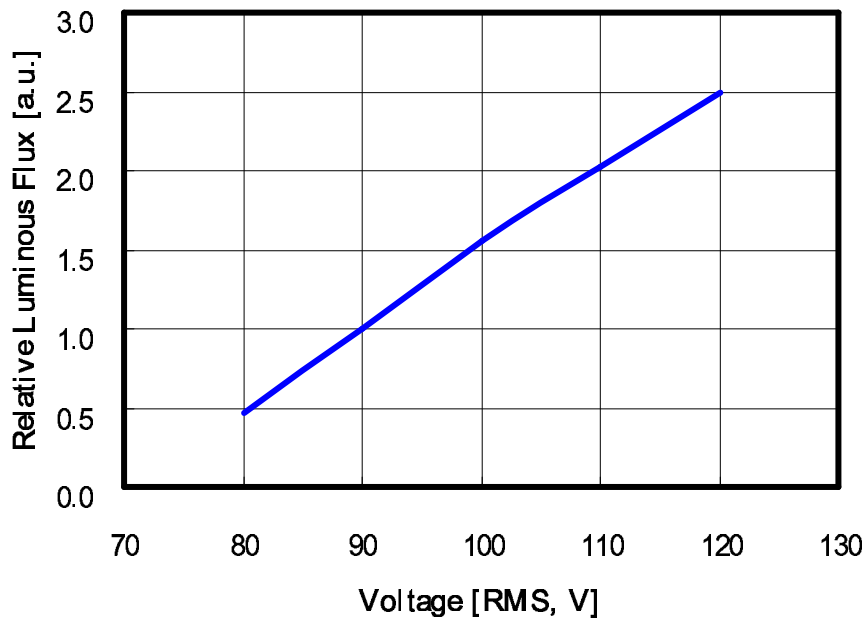
Typical Flux- Thermal Pad Temperature Characteristics



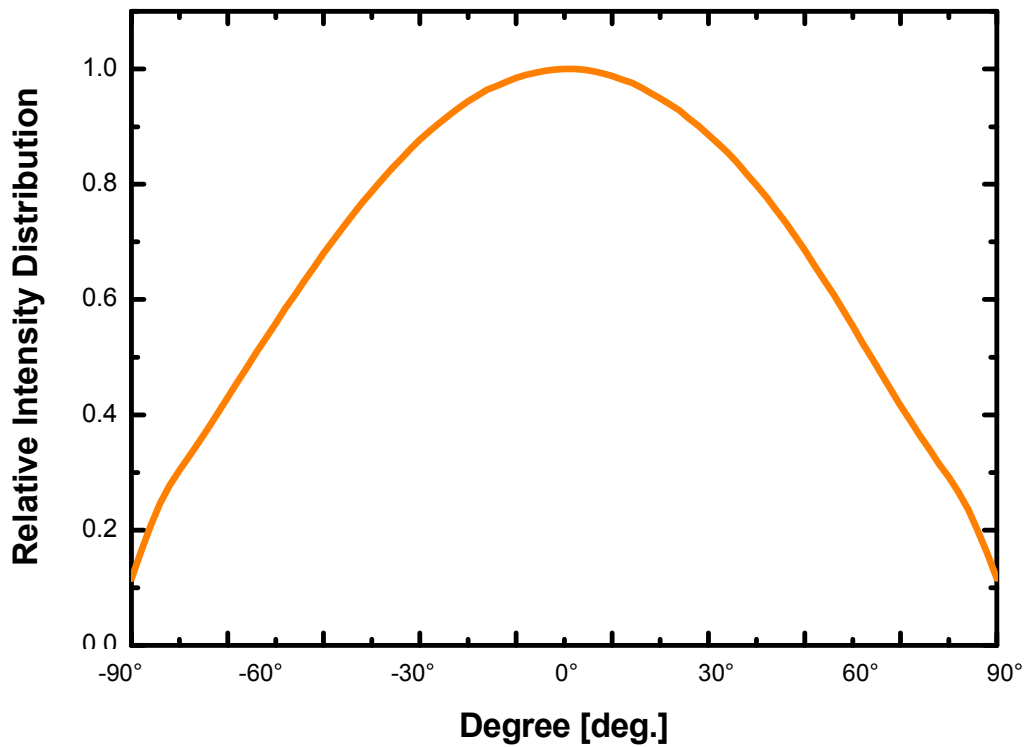
Typical Current - Voltage Characteristics



Typical Relative Luminous Flux vs. Voltage



Typical Radiation Patterns

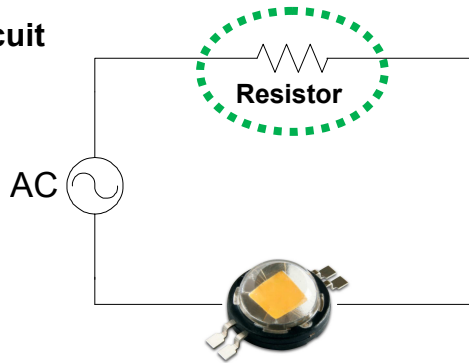


Note

1. $2\theta_{1/2}$ is the off axis angle from lamp centerline where the luminous intensity is 1/2 of the peak value.
2. Viewing angle tolerance is $\pm 10^\circ$.

Application Note

1. Operating circuit



2. Recommended resistor

- i. Everlight ACTION must be used with a resistor.
- ii. The tolerance of current is $\pm 5\%$ on each resistance rank.
- iii. Resistor table:

ELAC 1W (ELAC-1XXX) Series, 100/110VAC

Voltage Bin	Minimum Voltage(Vrms)	Maximum Voltage(Vrms)	Recommended Resistor	
			100V	110V
1	80.0	82.0	2.20K Ω	3.20K Ω
2	82.0	84.0	2.00K Ω	3.00K Ω
3	84.0	86.0	1.80K Ω	2.80K Ω
4	86.0	88.0	1.60K Ω	2.60K Ω
5	88.0	90.0	1.40K Ω	2.40K Ω
6	90.0	92.0	1.20K Ω	2.20K Ω
7	92.0	94.0	1.00K Ω	2.00K Ω
8	94.0	96.0	800 Ω	1.80K Ω
9	96.0	98.0	600 Ω	1.60K Ω
10	98.0	100.0	400 Ω	1.40K Ω

- Driven at 10mA [RMS]

ELAC 4W (ELAC-4XX1) Series, 100/110VAC

Voltage Bin	Minimum Voltage(Vrms)	Maximum Voltage(Vrms)	Recommended Resistor	
			100V	110V
1	80.0	82.0	550Ω	800Ω
2	82.0	84.0	500Ω	750Ω
3	84.0	86.0	450Ω	700Ω
4	86.0	88.0	400Ω	650Ω
5	88.0	90.0	350Ω	600Ω
6	90.0	92.0	300Ω	550Ω
7	92.0	94.0	250Ω	500Ω
8	94.0	96.0	200Ω	450Ω
9	96.0	98.0	150Ω	400Ω
10	98.0	100.0	50Ω	350Ω

-Driven at 40mA [RMS]

ELAC 4W (ELAC-4XX2) Series, 220/230VAC

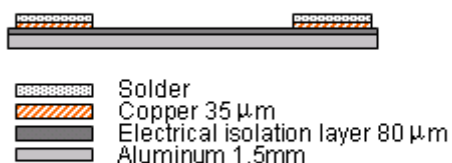
Voltage Bin	Minimum Voltage(Vrms)	Maximum Voltage(Vrms)	Recommended Resistor	
			220V	230V
1	175.0	180.0	2.00KΩ	2.50KΩ
2	180.0	185.0	1.75KΩ	2.25KΩ
3	185.0	190.0	1.50KΩ	2.00KΩ
4	190.0	195.0	1.25KΩ	1.75KΩ
5	195.0	200.0	1.00KΩ	1.50KΩ

-Driven at 20mA [RMS]

3. Thermal Management

- i. For maintaining the high flux output and achieving reliability, Everlight AC LED series LED package should be mounted on a metal core printed circuit board (MCPCB) or Aluminum heat sink with proper thermal connection to dissipate approximately 4W of thermal energy under 100/110V and 220/230V operation.

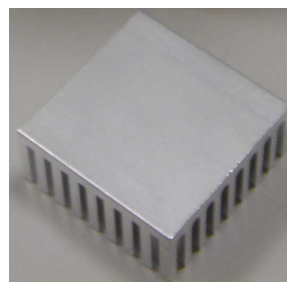
MCPCB structure



Recommended supplier

- Kavano Industrial Co., Ltd
- TT Electronics

Heat sink

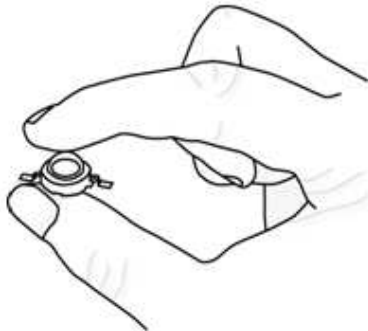


- ii. Special thermal designs are also recommended to take in outer heat sink design, such as FR4 PCB on Aluminum with thermal vias or FPC on Aluminum with thermal conductive adhesive, etc.
- iii. Under extreme driving conditions, sufficient thermal management must be implemented or the die junction temperature may exceed the limit and the LED lifetime will decrease rapidly.
- iv. It is recommended that the temperature of the Heat sink should be below 70°C.

4. Proper Handling

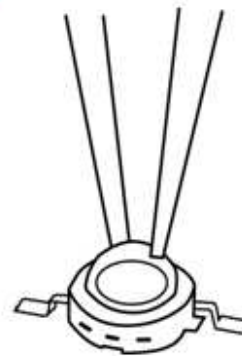
To avoid contamination of materials, damage of internal components, and shortening of LED lifetime, do not subject LEDs to conditions as those listed below.

Bare Hand



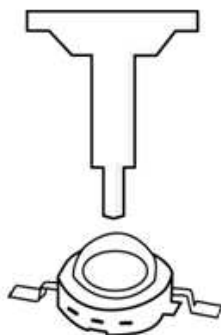
When handling the product, do not apply direct pressure on the resin.

Tweezers



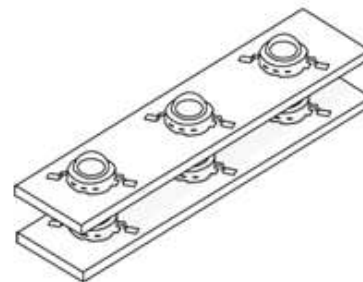
Do not touch the resin to avoid scratching or other damage.

Pick and Place Nozzle for Surface Mount Assembly.



Avoid directly contacting with nozzle.

During Module Assembly

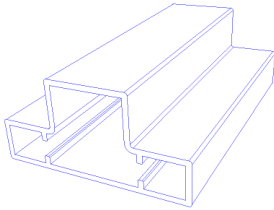


Do not stack the modules together, it could damage the resin or scratch the lens.

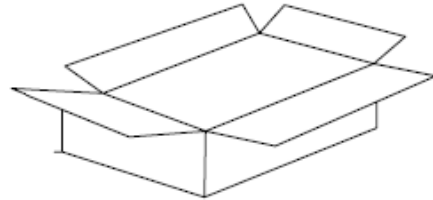
Emitter Tube Packaging

◇ For ELAC-1W Series only.

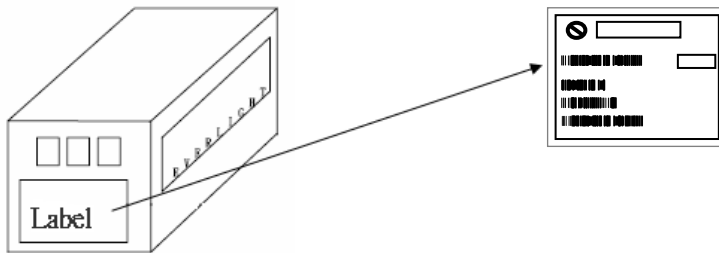
1. Tube



2. Inner Carton



3. Outside Carton



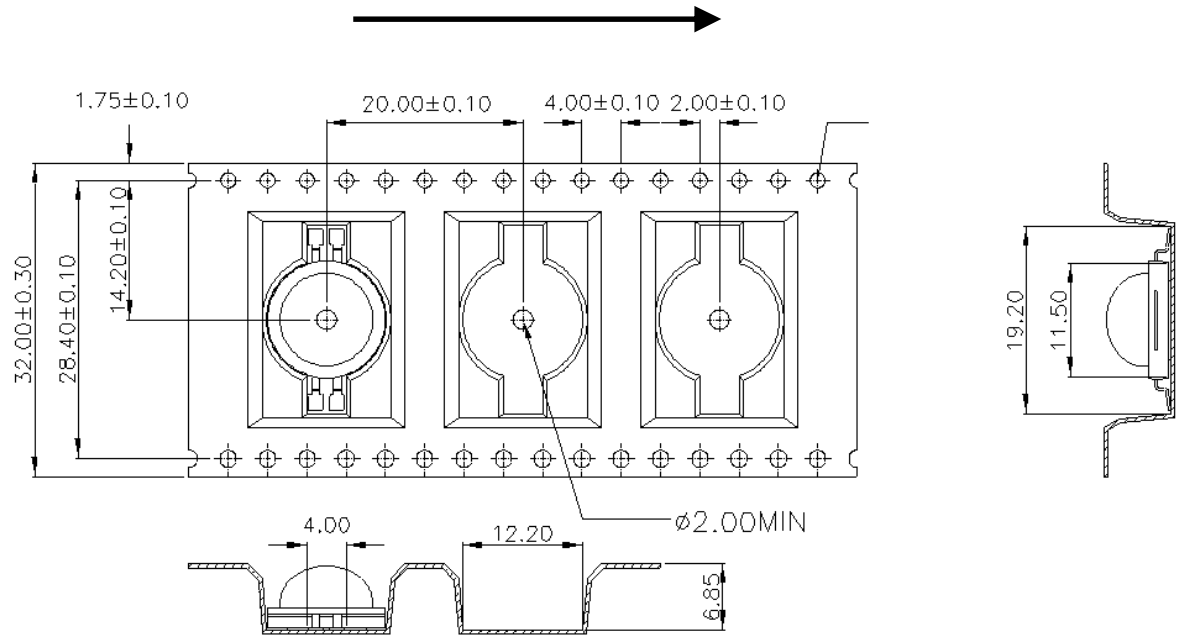
● Packing Quantity

1. 50 pcs / Tube
2. 20 tubes / Inner Carton
3. 12 Inner Cartons / Outside Carton
4. Minimum Order Quantity: 100 pcs

Emitter Tape Packaging

◇ For ELAC-2W, 4W Series.

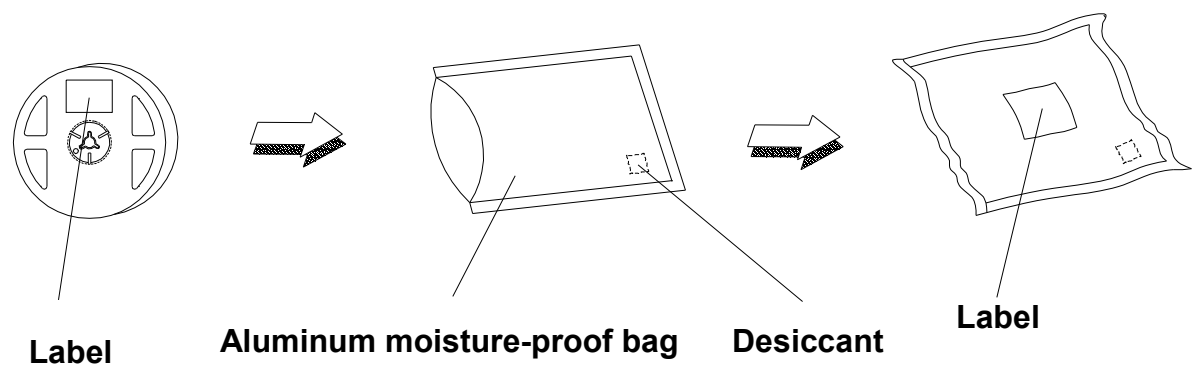
Feed Direction



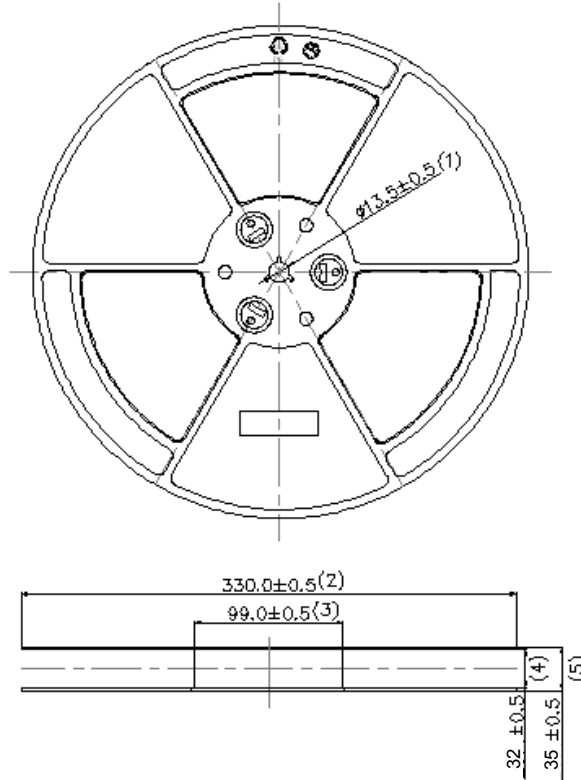
Packing Quantity

1. 400pcs / One Reel
2. Dimensions are in millimeters
3. The tolerances unless mentioned is ± 0.1 mm
4. Minimum Order Quantity: 100 pcs

Moisture Resistant Packaging



Emitter Reel Packaging



Note

1. Dimensions are in millimeters
2. The tolerances unless mentioned is $\pm 0.1\text{mm}$

Product Labeling

Label Explanation

CPN: Customer Specification (when required)

P/N : Everlight Production Number

QTY: Packing Quantity

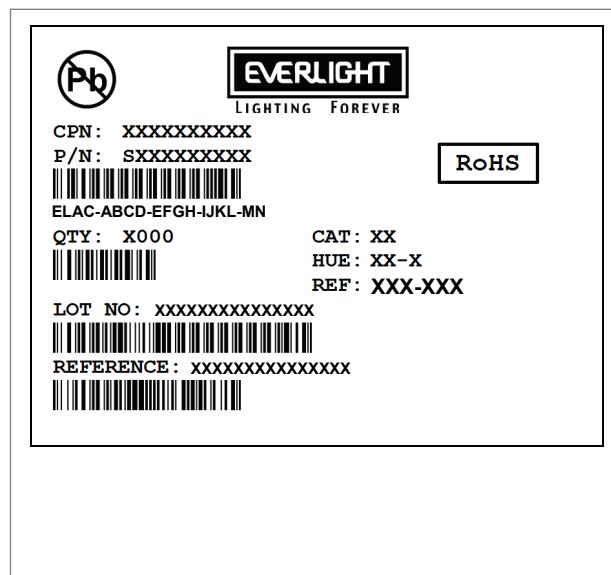
LOT No: Lot Number

CAT: Rank of Luminous Flux

HUE: Color Rank

REF: Rank of Operating Voltage

MADE IN TAIWAN: Production Place



MSL: Moisture Sensitive Level

* Full explanation of P/N and Bin code is described in "Product Nomenclature" section

Global Network

ASIA

TAIWAN

TAICHUNG

EVERLIGHT ELECTRONICS CO., LTD.
 台灣苗栗苑裡鎮玉田里6鄰國光巷35號
 No. 35, Lane Guoguang, 6th Neighborhood
 Yutian Village, Yuanli Township,
 Miaoli County 35874, Taiwan
 TEL: 886-37-741000
 FAX: 886-37-740776
 EMAIL: marketing@everlight.com,

TAINAN

EVERLIGHT ELECTRONICS CO., LTD.
 台灣台南市東區林森一路395號8樓之6
 Room 6, 8F, 395, Sec. 1, Linseng Rd.,
 East District, Tainan 701, Taiwan
 TEL: +886-6-235-8282
 FAX: +886-6-235-9292
 EMAIL: robertchen@everlight.com

CHINA

HONG KONG

EVLITE ELECTRONICS CO., LTD.
 香港官塘成業街6號弘富廣場1606-8室
 Units 1606-1608, 16/F, Modern Warehouse,
 6 Shing Yip Street, Kwun Tong, Kowloon,
 Hong Kong
 TEL: +852-23880602
 FAX: +852-23881127, 23843092
 EMAIL: hkcm@everlight.com

GUANGZHOU

EVERLIGHT ELECTRONICS (BVI) CO., LTD
 中國廣東省廣州市番禺區沙頭街禹山西路
 沙頭路段北側商業樓205-209
 205 2F, Business Building Shatou,
 East Yushan Rd., Panyu Town, Guangzhou,
 PRC, China
 Postcode: 511490
 TEL: +86-(0)20-84663392
 FAX: +86-(0)20-84663372
 EMAIL: chcm@everlight.com

SUZHOU

EVERLIGHT ELECTRONICS (CHINA) CO., LTD
 中國江蘇省蘇州市新區濱河路1388號
 X2創意街3A樓608室
 Binhe Rd. 1388, X2 Creative Block A-608,
 Suzhou City, Jiangsu Province, PRC, China
 Postcode: 215011
 TEL: +86-(0)512-68021303 68631358
 FAX: +86-(0)512-68021302 68631348
 EMAIL: chsha@everlight.com

TIANJIN

EVERLIGHT ELECTRONICS (BVI) CO., LTD
 中國天津市河北區中山路290號
 萬科中心大廈2109室
 No. 2109, Vanke Center Building, No. 290,
 Zhongshan Rd., Hebei District, Tianjin, China
 Postcode: 300141
 TEL: +86-22-26351122, 26351133
 EMAIL: chsha@everlight.com

KOREA

**EVERLIGHT OPTOELECTRONICS
 KROEA CO., LTD.**
 #302, Yoksamdong 720-2, Kangnamku,
 Seoul, Korea
 TEL: +82-2-562-8088
 FAX: +82-2-562-6588
 EMAIL: danieljo@everlight.com

MALAYSIA

**EVERLIGHT OPTOELECTRONICS
 (M) SDN BHD**
 B-04-20 Krystal Point,
 303 Jalan Sultan Azlan Shah,
 11900 Penang, Malaysia
 TEL: +60-4-6464233
 FAX: +60-4-6465233
 EMAIL: inquiry@everlight-pg.com.my

JAPAN

E&E JAPAN CO., LTD.
 Kindaikagakysha 7F, 2-7-15, Ichigayatamachi,
 Shinjuku-ku, Tokyo, 162-0843, Japan
 TEL: +81-(0)3-3267-6761
 FAX: +81-(0)3-5225-6771
 EMAIL: eejp@eejp.co.jp
 www.ee.jp.co.jp

AMERICA

CALIFORNIA USA

EVERLIGHT AMERICAS INC.
 325 Piercy Road San Jose, CA 95138, USA
 TEL: +1-408-225-7800
 FAX: +1-408-225-7800
 EMAIL: salesmkt@everlight.com
 www.everlightamericas.com

TEXAS USA

EVERLIGHT AMERICAS INC.
 3220 Commander Dr. Suite 100 Carrollton,
 Texas, 75006, United States
 TEL: +1-972-490-4008
 FAX: +1-972-490-5009
 EMAIL: salesmkt@everlight.com
 everlightinternational.com

CANADA

EVERLIGHT CANADA
 4145 North Service Rd., Suite 200 Burlington,
 On Canada L7L 6A3
 TEL: +1-905-315-5050
 FAX: +1-905-336-0040
 EMAIL: everlightcanada@everlightinternational.com

EUROPE

GERMANY

EVERLIGHT ELECTRONICS EUROPE GMBH
 Breite Str. 155, 76135 Karlsruhe Germany
 TEL: +49-721-824-473
 FAX: +49-721-824-4740
 EMAIL: info@everlight-eu.de

NORDIC

EVERLIGHT ELECTRONICS EUROPE GMBH
 Isafjordsgatan 22, 164 40 Kista, Sweden
 TEL: +46-8375617-8
 EMAIL: nordic@everlight-eu.de

PLANTS

TAIWAN

TAIPEI

EVERLIGHT ELECTRONICS CO., LTD.
 台灣台北縣土城市中央路三段76巷25號
Everlight Electronics Co., Ltd
 25, Lane 76, Sec 3, Chung Yang Rd
 TuCheng, Taipei 23671, Taiwan
 TEL: +886-2-22672000
 FAX: +886-2-22698197

YUAN-LI

EVERLIGHT ELECTRONICS CO., LTD.
 台灣苗栗苑裡鎮玉田里6鄰國光巷35號
 No. 35, Lane Guoguang, 6th
 Neighborhood
 Yutian Village, Yuanli Township,
 Miaoli County 35874, Taiwan
 TEL: 886-37-741000
 FAX: 886-37-740776

CHINA

GUANGZHOU

EVERLIGHT ELECTRONICS (BVI) CO., LTD
 中國廣東省番禺區蓮花山港口工業區7C座
 7C, B/5, Building,
 Lian Hua Shan Port Industry District
 Pan Yu, Guang Zhou, China
 TEL: +86-20-84865918, 84860913
 FAX: +86-20-84860600

SUZHOU

EVERLIGHT ELECTRONICS (CHINA) CO., LTD
 中國江蘇省吳江市松陵鎮經濟開發區運西分區
 中山北路2135號 (瓜涇橋旁)
 2135, Zhong Shan N. Rd,
 WuJiang Economy Development Zone
 SongLing Town, WuJiang City,
 Jiang Su, PRC, China
 TEL: +86-512-63409123
 FAX: +86-512-63409162

Taiwan Headquarters

NO.25, LANE 76, SEC. 3, CHUNG YANG RD., TUCHENG 236, TAIPEI, TAIWAN 23671
 台北縣土城市中央路三段76巷25號
 TEL : +886-2-2267-2000 FAX : +886-2-2267-6244 2267-6189
 www.everlight.com



Revision History

Current version: **2010/01/21**

Previous version: 2.0

Device No. Preliminary

Rev.1.0

Page	Subjects (major change in previous version)	Date of change